

ABSTRACT

A method for testing an CMOS ternary content addressable memory (TCAM) device includes a match line test to identify stuck match lines, a pull down test to identify weak pull downs (from the match line to ground), and a row-by-row match test. During the row-by-row match test a failed cell can be repaired or the row associated with the failed cell can be disabled. A failed cell or its associated row can also be repair or disabled, respectively, after the test. Additionally, individual CAM cells which are identified as being defective can be further tested to identify which component of the CAM cell failed.